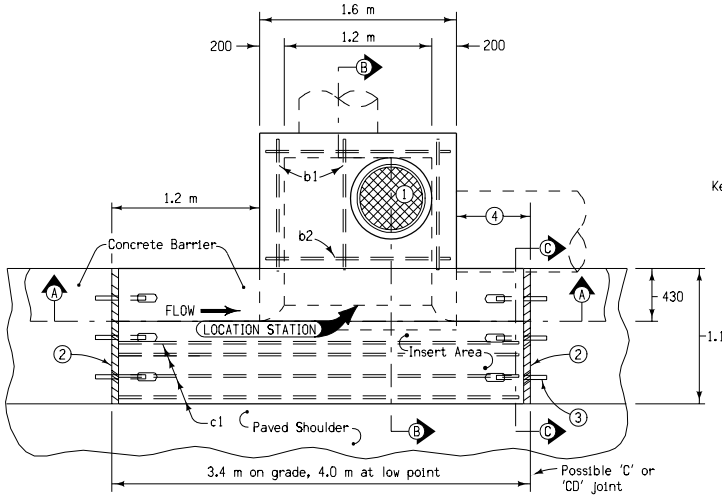
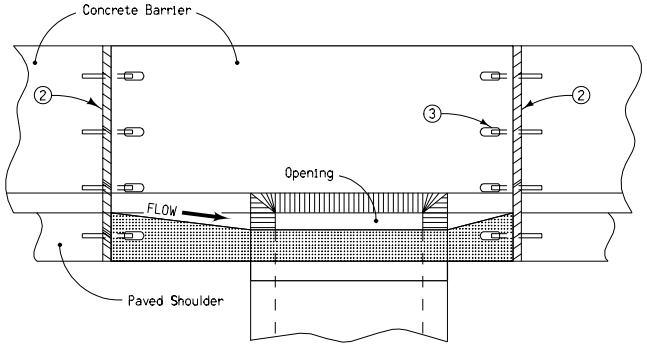
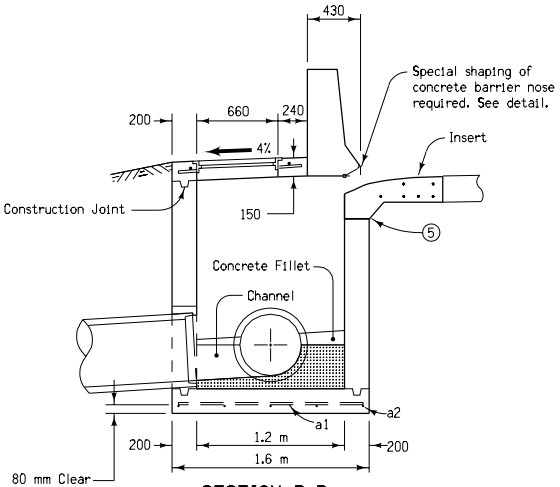


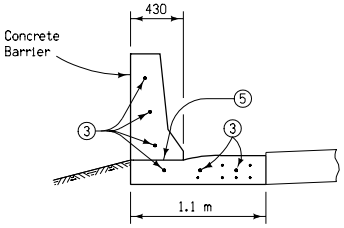
PLAN



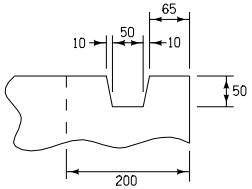
SECTION A-A



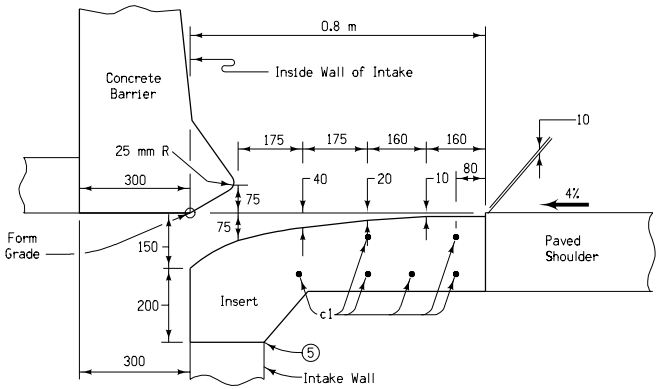
SECTION B-B



SECTION C-C



KEYED CONSTRUCTION JOINT DETAIL



SPECIAL SHAPING OF INSERT

REINFORCING BAR LIST

MARK	SIZE	LOCATION	SHAPE	NO.	LENGTH	MASS	SPACING
a1	15	Base	———	5	1500	12 kg	375
a2	15	Base	———	5	1500	12 kg	375
b1	15	Top	———	3	1000	5 kg	See Detail
b2	15	Top	———	2	1500	5 kg	See Detail
c1	15	Insert	———	6	3300 / 3900	31 kg / 37 kg	See Detail
					Total	65 kg / 71 kg	

GENERAL NOTES:

This detail illustrates the construction and installation of a storm sewer intake for use under a concrete barrier.

All reinforcing bars shall be ASTM A 615M, Grade 400.

Precast concrete units with these dimensions may be utilized. The Contractor shall be responsible for any additional reinforcement necessary to prevent cracking during transportation and installation.

If unit is cast in place, storm sewer pipe shall be installed before intake sidewall construction is started. Sidewalls shall be constructed as indicated with openings for storm sewer pipe(s) smoothly shaped and inlet pipe(s) not projecting unnecessarily into well. Outlet pipe(s) shall not project beyond inside face of sidewall. Storm sewer pipe locations shown hereon are typical. Refer to detail project plans for exact locations.

Price bid for intake does not include materials or construction of concrete barrier or insert area. Insert area concrete has been included with quantity for concrete pavement, shoulder or median, whichever is applicable. Finish of the intake top or any exposed portion shall be as required for "Structural Concrete" in current Standard Specifications.

Joints in pavement adjacent to intake shall be as shown on Standard Road Plans RH-50, 51, and 52. Joint locations shall be as indicated hereon except where specifically modified by other plan drawings or by the Engineer.

Price bid for "Intake, RA-46" shall include:

A. All necessary excavation and backfill.
B. Satisfactory connection to new or existing storm sewer as per detail plans. Connections to precast units shall be grouted.
C. Furnishing all materials and constructing intake as detailed hereon.

Placing sequence: 1. Base; 2. Walls; 3. Top; 4. Insert.

1. Use standard utility access ring and cover (RA-55 Type 1, Light Duty)
2. 'EE' expansion joint. Refer to Standard Road Plan RH-52 for details.
3. (6) 300 millimeter smooth dowel bars in insert and 6 dowel bars in concrete barrier per installation.
4. 0.6 meters on grade, 1.2 meters at low point.
5. Trowel smooth and place subgrade paper to prevent bond.

All dimensions given in millimeters unless noted.

M

METRIC VERSION

Iowa Department of Transportation
Highway Division

STANDARD ROAD PLAN | **RA-46**

REVISION: Require Concrete Fillet.

REVISION NO. 2

REVISION DATE 04-15-03

William J. Stein
APPROVED BY DESIGN METHODS ENGINEER

INTAKE FOR
HALF SECTION BARRIER
(With Utility Access)